

CM8100-10G High Density Console Manager

with Smart Out-of-Band Management



CM8100-10G, used with our Lighthouse software, is the newest addition to Opengear's Network Resilience platform.

- Secure, remote, access to manage up to 96 serial devices
- Connect to high-speed networks via 10G SFP+ uplinks
- Simplify configuration with the auto-port discovery
- Reduce cable clutter with software-selectable serial ports
- Global cellular modem for cellular resiliency



Console Specifications

Serial Ports	<ul style="list-style-type: none">• CM8116-10G: 16 x RJ45 RS-232 Software Selectable Straight or Rollover Pinout• CM8132-10G: 32 x RJ45 RS-232 Software Selectable Straight or Rollover Pinout• CM8148-10G: 48 x RJ45 RS-232 Software Selectable Straight or Rollover Pinout• CM8196-10G: 96 x RJ45 RS-232 Software Selectable Straight or Rollover Pinout
--------------	---

Interfaces

Network Ports	2 x 10G SFP+ Fiber and 2 x 1000 Base-T Ethernet
Console Port	1 x RJ45 RS-232 Console Port - Cisco rolled X1 pinout, baud rate 9600
Serial Ports	RJ45 RS-232 Software Selectable 50 to 230,400 bps
USB	<ul style="list-style-type: none">• 2 x USB 3.0 host ports, can be used for external storage or serial console, 900mA per port• CM8148-10G-USB and CM8116-10G-USB only: 8 x USB-C 2.0 for serial ports, 150 mA per port
Remote Access	Dual Ethernet, aggregation & redundancy, Automatic Network Failover, Easy browser UI, IPv6
Console Management	<ul style="list-style-type: none">• Local WebUI has built-in web terminal for CLI access• IP alias for serial port console connections• Support for console event and keystroke logging• Alert on text pattern match• Multiple concurrent sessions• Centralized access to all serial managed devices from Lighthouse software

Power Requirements

Dual AC	Dual socket universal IEC C14 inlet 100-240V AC 50/60Hz
Dual DC	+/- 40V to 72V DC, 1.5A - 0.75A (x2)
Power Consumption	<ul style="list-style-type: none">• CM8148-10G: 20W (69 BTU/h) typical, 39W (133 BTU/h) maximum• CM8196-10G: 30W (102 BTU/h) typical, 41W (140 BTU/h) maximum• CM8148-10G-USB: 21W (72 BTU/h) typical, 48W (164 BTU/h) maximum• CM8148-10G-C: 28W (96 BTU/h) typical, 40W (137 BTU/h) maximum
Cooling	Passive Cooling - can be forward or reverse mounted to best suit airflow

Physical Dimensions

Dimensions and Weight	<ul style="list-style-type: none">• CM8148-10G, CM8132-10G, and CM8116-10G: 17.3" x 10.5" x 1.75" - 8 lbs, 440 x 265 x 44 mm - 3.5 kg• CM8196-10G: 17.3" x 10.5" x 3.5" - 10 lbs, 440 x 265 x 87 mm - 4.5 kg• CM81xx-10G-C: 17.3" x 10.5" x 1.75" - 8 lbs, 440 x 265 x 44 mm - 3.7 kg
Form Factor	<ul style="list-style-type: none">• CM8148-10G, CM8132-10G, and CM8116-10G: 1 RU• CM8196-10G: 2 RU

Memory and CPU

CPU	1.6 GHz Dual-Core ARM Cortex-A9 SoC
Memory	2GB DDR4 SDRAM
Storage	32GB eMMC

Environmental

Operating Temperature	5°C to 50°C, 41°F to 122°F
Storage Temperature	-30°C to +60°C, -22°F to +140°F
Humidity	5% to 90% (non-condensing)

Security, Encryption & Authentication

- TACACS+, RADIUS, Active Directory/OpenLDAP, with local fallback
- IPSec and OpenVPN
- FIPS 140-2 compliant
- Trusted Platform Module 2.0

Automation & Scalability

- ZTP
- Ansible
- [API](#) based OS
- Docker support
- Python and Ruby
- SNMP-Standard MIBs

Global Cellular Interface

Modules CM81xx-10G-C: Sierra Wireless EM9291

Aggregation 5G NR Sub-6 & LTE CAT20

Certifications

Cellular PTCRB, GCF, Verizon and AT&T

Cyber Security EN 18031-1:2024, EN 18031-2:2024, EN 18031-3:2024

Emissions 47 CFR Parts: 15B, EN55032:2015+A11:2020, ICES-003 Issue 7, EN 61000-3-2:2019, EN 61000-3-3:2013

Immunity EN55035:2017+A11:2020

Other Agency Approvals KS C 9832:2023, KS C 9835:2019, AS/NZ CISPR 32:2015, VCCI-CISPR 32:2016, CISPR 22:2009, CNS 15936:2016

Radio Equipment Directive (RED) EN 301 908-1 V15.2.1, EN 301 908-2 V13.1.1, EN 301 908-13 V13.2.1, EN 303 413 V1.2.1, EN 301 489-1 V2.2.3 (2019-11), EN 301 489-52:2021 v.1.2.1, EN 62311: 2020

RoHS EN 63000:2018

Safety IEC 62368-1:2018, EN 62368-1:2014 + A11:2017, EN 62368-1:2023

Warranty

5 years hardware replacement included. Appliance requires a minimum of 1 year Foundation Support at the time of purchase.

Available Models

Model

Description

CM8116-10G 16 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual AC

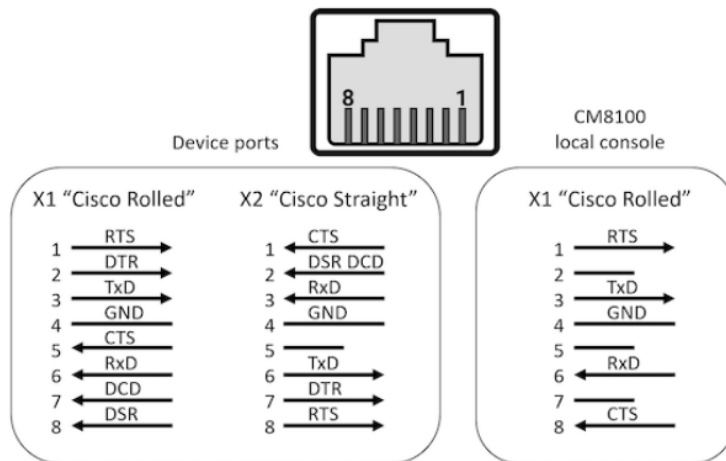
CM8116-10G-C 16 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet

Model	Description
	(RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual AC, 5G cellular modem
CM8116-10G-DDC	16 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual DC
CM8116-10G-USB	16 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual AC, 8 x rear USB-C 2.0 for serial ports
CM8132-10G	32 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual AC
CM8132-10G-C	32 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual AC, 5G cellular modem
CM8132-10G-DDC	32 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual DC
CM8148-10G	48 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual AC
CM8148-10G-C	48 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual AC, 5G cellular modem
CM8148-10G-DDC	48 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual DC
CM8148-10G-USB	48 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, Dual AC, 8 x rear USB-C 2.0 for serial ports
CM8196-10G	96 x RS-232 RJ45 serial selectable pinout, 2x 10G Ethernet (SFP+), 2x 1G Ethernet (RJ45), ARM 1.6GHz 2-core, 2GB mem, 32GB flash, TPM 2.0, 2RU, Dual AC
	Every appliance ships with 2 x C14 power cables. Country-specific power cables can be purchased separately.

Package Checklist

- Console Server CM81xx-10G
- Rack Mount Kit (Part# 590037)
 - Two rack ears with six M4 screws
 - Four M5mm caged nuts
 - Four M5x15mm rack screws
- One CAT5 Patch Cable 5'
- One DB9F-RJ45 rollover serial adapter (Part# 319018)
- Two A/C Power cables (not included with -NP and -DDC)
- Four Cellular antennas (Part# 569052) - Cellular

Opengear Pinout



Optional Accessories

Part Number	Description
319017	Adapter - DB9F to RJ45 straight serial - DCE -For X1 Pinout
319018	Adapter - DB9F to RJ45 crossover serial -DTE - For X1 Pinout
319019	Adapter - DB9M to RJ45 straight serial - DCE - For X1 Pinout
440016	Cable - Straight through CAT5 - 5' length
590037	Rack Mount Kit - Ears and Screws - CM8100 / OM2200

Warranty

Part Number	Description
Included	5 year standard warranty

Select one of the following to include with the appliance:

OG-FNTS-CM8100-1YR	1 year Foundation Support for CM8100 - 8x5 Regional Support with Advanced Replacement
OG-FNTS-CM8100-2YR	2 year Foundation Support for CM8100 - 8x5 Regional Support with Advanced Replacement
OG-FNTS-CM8100-3YR	3 year Foundation Support for CM8100 - 8x5 Regional Support with Advanced Replacement
OG-FNTS-CM8100-5YR	5 year Foundation Support for CM8100 - 8x5 Regional Support with Advanced Replacement
OG-FNTS-CM8100-7YR	7 year Foundation Support for CM8100 - 8x5 Regional Support with Advanced Replacement

Part Number	Description
OG-PRTS-1YR	1 year Premium Support - Access to Premium Resources 24x7 and Advanced Replacements
OG-PRTS-2YR	2 year Premium Support - Access to Premium Resources 24x7 and Advanced Replacements
OG-PRTS-3YR	3 year Premium Support - Access to Premium Resources 24x7 and Advanced Replacements
OG-PRTS-5YR	5 year Premium Support - Access to Premium Resources 24x7 and Advanced Replacements
OG-PRTS-7YR	7 year Premium Support - Access to Premium Resources 24x7 and Advanced Replacements